

Application No.: 10/811,895

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A spindle motor comprising:

a chassis;

a rotor magnet;

a rotor-side bearing member;

a stator-side bearing member;

a rotor hub having a hollow circular hole and disposed to the center of rotation;

a support column secured to the chassis; and

a stator armature having a wound coil and disposed to the chassis in a position confronting the rotor magnet;

wherein the support column is disposed to the chassis in a manner to pass through the hollow circular hole in the rotor hub;

wherein the chassis has a protruding portion in an area around the support column, and a height of the protruding portion is greater than a height of the stator-side bearing member; and

wherein the rotor-side bearing member, in combination with the stator-side bearing member disposed to the chassis, forms a fluid bearing for supporting the rotor hub,

wherein the support column, the rotor-side bearing member, the stator-side bearing member and the protruding portion are disposed in this order from a central axis, and the protruding portion is disposed outside the fluid bearing.

2. (Previously presented) The spindle motor according to claim 1, wherein the fluid bearing comprises:

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a thrust bearing having a dynamic pressure generating groove formed in any of two axially confronting surfaces of the rotor-side bearing member and the stator-side bearing member, and

a radial bearing having another dynamic pressure generating groove formed in any of two radially confronting surfaces of the rotor-side bearing member and the stator-side bearing member.

3. (Previously presented) The spindle motor according to claim 1, wherein the rotor hub and the rotor-side bearing member are made of a same material and formed integrally.

4. (Previously presented) The spindle motor according to claim 1, wherein the support column retaining the stator-side bearing member comprises a flat portion and a cylindrical portion, and the flat portion and the cylindrical portion are made of separate pieces and assembled into a unit.

5. (Withdrawn) The spindle motor according to claim 1, wherein the support column retaining the stator-side bearing member comprises only a cylindrical portion.

6-7. (Canceled)

8. (Previously presented) The spindle motor according to claim 1, wherein the protruding portion of the chassis is formed into a shape that a part of the protruding portion extending beyond an upper end of the stator-side bearing member is tapered so that a diameter of the part becomes smaller the more the protruding portion extends above the upper end of the bearing member.

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9. (Withdrawn) The spindle motor according to claim 4, wherein the support column has a threaded portion in a tip end of the cylindrical portion.

10. (Currently Amended) A disk drive unit provided with a spindle motor, the spindle motor comprising:

a chassis;

a rotor magnet;

a rotor-side bearing member;

a stator-side bearing member;

a rotor hub having a hollow circular hole and disposed to the center of rotation;

a support column secured to the chassis; and

a stator having a wound coil and disposed to the chassis in a position confronting the rotor magnet;

wherein the support column is disposed to the chassis in a manner to pass through the hollow circular hole in the rotor hub;

the disk drive unit further comprising:

a disk having a recording layer formed on a surface thereof, and disposed to an upper surface of a flange portion of the rotor hub in the spindle motor;

a cover having an abutment portion in abutment on one of tip ends of the cylindrical portion constituting the support column in the spindle motor;

a signal conversion element for recording and reproducing data in the recording layer formed on the disk; and

a swing member for positioning the signal conversion element to a predetermined tracking position;

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wherein the chassis has a protruding portion in an area around the support column, and a height of the protruding portion is greater than a height of the stator-side bearing member; and

wherein the rotor-side bearing member, in combination with the stator-side bearing member disposed to the chassis, forms a fluid bearing for supporting the rotor hub,

wherein the support column, the rotor-side bearing member, the stator-side bearing member and the protruding portion are disposed in this order from a central axis, and the protruding portion is disposed outside the fluid bearing.

11. (Withdrawn) The disk drive unit according to claim 10, wherein:

the support column of the spindle motor has a threaded portion in a tip end of the cylindrical portion;

the cover is provided with a through hole in a position of the abutment portion corresponding to the threaded portion of the support column; and

the cover is held in abutment on and secured to the tip end of the cylindrical portion of the support column with a screw in the through hole of the cover.

12. (Previously presented) The disk drive unit according to claim 10, wherein the fluid bearing comprises:

a thrust bearing having a dynamic pressure generating groove formed in any of two axially confronting surfaces of the rotor-side bearing member and the stator-side bearing member; and

a radial bearing having another dynamic pressure generating groove formed in any of two radially confronting surfaces of the rotor-side bearing member and the stator-side bearing member.

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13. (Previously presented) The disk drive unit according to claim 10, wherein the rotor hub and the rotor-side bearing member are made of a same material and formed integrally.

14. (Previously presented) The disk drive unit according to claim 10, wherein the support column retaining the stator-side bearing member comprises a flat portion and a cylindrical portion, and the flat portion and the cylindrical portion are made of separate pieces and assembled into a unit.

15. (Withdrawn) The disk drive unit according to claim 10, wherein the support column retaining the stator-side bearing member comprises only a cylindrical portion.

16-17. (Canceled)

18. (Previously presented) The disk drive unit according to claim 10, wherein the protruding portion of the chassis is formed into a shape that a part of the protruding portion extending beyond an upper end of the stator-side bearing member is tapered so that a diameter of the part becomes smaller the more the protruding portion extends above the upper end of the bearing member.

19-22 (Cancelled)